```
     FILE 'REGISTRY' ENTERED AT 15:30:18 ON 02 MAR 2009
                EXP LINOLEIC/CN
L1             1 S E4

     FILE 'HCAPLUS' ENTERED AT 15:30:46 ON 02 MAR 2009
L2         64068 S L1 OR LINOLEIC OR (VITAMIN F) OR (OMEGA-6)
L3         39402 S CYCLODEXTRIN
L4           189 S L2 AND L3
L5           106 S L4 AND (PY<2003 OR AY<2003 OR PRY<2003)

     FILE 'HCAPLUS' ENTERED AT 15:35:28 ON 02 MAR 2009

     FILE 'REGISTRY' ENTERED AT 15:35:37 ON 02 MAR 2009
                E A CYCLODEXTRIN/CN

     FILE 'HCAPLUS' ENTERED AT 15:35:37 ON 02 MAR 2009

     FILE 'REGISTRY' ENTERED AT 15:35:47 ON 02 MAR 2009
                E ACYCLODEXTRIN/CN

     FILE 'HCAPLUS' ENTERED AT 15:35:48 ON 02 MAR 2009

     FILE 'REGISTRY' ENTERED AT 15:36:04 ON 02 MAR 2009
                E ALPHA CYCLODEXTRIN/CN

     FILE 'HCAPLUS' ENTERED AT 15:36:05 ON 02 MAR 2009
L6          7087 S ALPHA CYCLODEXTRIN
L7            38 S L2 AND L6
L8            23 S L7 AND (PY<2003 OR AY<2003 OR PRY<2003)
```

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=> file registry
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                             ENTRY    SESSION
FULL ESTIMATED COST                                           0.22       0.22

FILE 'REGISTRY' ENTERED AT 15:30:18 ON 02 MAR 2009
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   27 FEB 2009  HIGHEST RN 1113101-98-6
DICTIONARY FILE UPDATES:  27 FEB 2009  HIGHEST RN 1113101-98-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> exp linoleic/cn
E1            1     LINOLEATE ISOMERASE (LACTOBACILLUS PLANTARUM STRAIN AS1.555)
                    /CN
E2            1     LINOLEATE PEROXYL RADICAL/CN
E3            0 --> LINOLEIC/CN
E4            1     LINOLEIC ACID/CN
E5            1     LINOLEIC ACID (D(-)-), (2,2-DIMETHYL-1,3-DIOXOLAN-4-YL)METHY
                    L ESTER/CN
E6            1     LINOLEIC ACID (L(-)-), 2-HYDROXY-3-(TRILYLOXY)PROPYL ESTER/C
                    N
E7            1     LINOLEIC ACID Ω-6 LIPOXYGENASE/CN
E8            1     LINOLEIC ACID 1-(2-NAPHTHYL)ETHYL ESTER/CN
E9            1     LINOLEIC ACID 1-NAPHTHYLMETHYL ESTER/CN
E10           1     LINOLEIC ACID 10-HYDROPEROXIDE/CN
E11           1     LINOLEIC ACID 12-HYDROPEROXIDE/CN
E12           1     LINOLEIC ACID 13(S)-HYDROPEROXIDE/CN

=> s e4
L1            1 "LINOLEIC ACID"/CN

=> file hcaplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                             ENTRY    SESSION
FULL ESTIMATED COST                                           5.83       6.05

FILE 'HCAPLUS' ENTERED AT 15:30:46 ON 02 MAR 2009
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FILE COVERS 1907 - 2 Mar 2009 VOL 150 ISS 10
FILE LAST UPDATED: 1 Mar 2009 (20090301/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

```
=> s l1 or linoleic or (vitamin F) or (omega-6)
         43084 L1
         48263 LINOLEIC
        217991 VITAMIN
        671725 F
           347 VITAMIN F
                 (VITAMIN(W)F)
        201652 OMEGA
       4246472 6
          6147 OMEGA-6
                 (OMEGA(W)6)
L2       64068 L1 OR LINOLEIC OR (VITAMIN F) OR (OMEGA-6)

=> s cyclodextrin
L3       39402 CYCLODEXTRIN

=> log hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       2.85       8.90

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 15:31:19 ON 02 MAR 2009

Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:SSPTAEXO1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 15:34:46 ON 02 MAR 2009
FILE 'HCAPLUS' ENTERED AT 15:34:46 ON 02 MAR 2009
COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)d
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       2.85       8.90

=> d his

     (FILE 'HOME' ENTERED AT 15:30:09 ON 02 MAR 2009)

     FILE 'REGISTRY' ENTERED AT 15:30:18 ON 02 MAR 2009
                EXP LINOLEIC/CN
L1             1 S E4

     FILE 'HCAPLUS' ENTERED AT 15:30:46 ON 02 MAR 2009
L2         64068 S L1 OR LINOLEIC OR (VITAMIN F) OR (OMEGA-6)
L3         39402 S CYCLODEXTRIN

=> s l2 and l3
L4           189 L2 AND L3

=> s l4 and (PY<2003 or AY<2003 or PRY<2003)
       22983504 PY<2003
        4504574 AY<2003
        3973543 PRY<2003
L5           106 L4 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       5.70      11.75

FILE 'HCAPLUS' ENTERED AT 15:35:28 ON 02 MAR 2009
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 2 Mar 2009  VOL 150 ISS 10
FILE LAST UPDATED: 1 Mar 2009  (20090301/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> exp α cyclodextrin/cn
```

```
   REG1stRY INITIATED
Substance data EXPAND from CAS REGISTRY in progress...


E1            1     A CHAIN HEMOGLOBIN (BATHYRAJA EATONII)/CN
E2            1     A CRYSTALLIN (RATTUS RATTUS STRAIN SPRAGUE-DAWLEY CLON
                    E PARL3 B-CHAIN)/CN
E3            0 --> A CYCLODEXTRIN/CN
E4            1     A E-CATENIN (SUS SCROFA C-TERMINAL FRAGMENT)/CN
E5            1     A ENOLASE (ALLIGATOR MISSISSIPPIENSIS MUSCLE)/CN
E6           34     A ENOLASE (AMEIVA CHRYSOLAEMA FRAGMENT)/CN
E7            1     A ENOLASE (ASTERIAS RUBENS STRAIN ENO3 FRAGMENT)/CN
E8            1     A ENOLASE (CAIMAN CROCODYLUS FRAGMENT)/CN
E9            1     A ENOLASE (CEREBRATULUS STRAIN ENO6 FRAGMENT)/CN
E10           1     A ENOLASE (ECHIURUS ECHIURUS STRAIN ENO4 FRAGMENT)/CN
E11           2     A ENOLASE (EUMECES INEXPECTATUS FRAGMENT)/CN
E12           1     A ENOLASE (EUPREPIS PERROTETII STRAIN SPECIMEN-VOUCHER
                    -FMNH-262227 FRAGMENT)/CN


=> exp αcyclodextrin/cn
   REG1stRY INITIATED
Substance data EXPAND from CAS REGISTRY in progress...


E1            1     AB-CRYSTALLIN (TRICHECHUS MANATUS GENE CRYAB N-TERMINA
                    L FRAGMENT)/CN
E2            1     AC-CONOTOXIN PRXA/CN
E3            0 --> ACYCLODEXTRIN/CN
E4            1     AD-GLOBIN (KALINOWASKI'S TINAMOU)/CN
E5            1     AD-GLOBIN (KOMODO DRAGON REDUCED)/CN
E6            1     AE-CATENIN (DANIO RERIO)/CN
E7            1     AE-CATENIN (HUMAN GENE CTNNA1)/CN
E8            1     AF-INTERFERON (HUMAN)/CN
E9            1     AG HESPERIDIN/CN
E10           1     AG HESPERIDIN H/CN
E11           1     AG HESPERIDIN PA/CN
E12           1     AG HESPERIDIN PS/CN


=> exp alpha cyclodextrin/cn
   REG1stRY INITIATED
Substance data EXPAND from CAS REGISTRY in progress...


E1            1     ALPHA CONOTOXIN QCAL-1 (CONUS QUERCINUS)/CN
E2            1     ALPHA CONOTOXIN QCAL-2 (CONUS QUERCINUS)/CN
E3            0 --> ALPHA CYCLODEXTRIN/CN
E4            1     ALPHA D3/CN
E5            1     ALPHA DNA POLYMERASE (CRYPTOCOCCUS NEOFORMANS NEOFORMANS STR
                    AIN JEC21)/CN
E6            1     ALPHA E1 ESTERASE (HAEMATOBIA IRRITANS STRAIN CAMP COOLEY-4/
                    97 GENE AE1)/CN
E7            1     ALPHA E7 ESTERASE (HAEMATOBIA IRRITANS IRRITANS STRAIN CAMP
                    COOLEY 4/97 CLONE HF41CC GENE AE7)/CN
E8            1     ALPHA E8 ESTERASE (HAEMATOBIA IRRITANS STRAIN CAMP COOLEY-4/
                    97 GENE AE8)/CN
E9            3     ALPHA ENDOSULFINE (HUMAN)/CN
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E10          1     ALPHA ENOLASE (HUMAN CLONE 23942)/CN
E11          1     ALPHA ENOLASE LIKE 1 (HUMAN GENE ENO1L1)/CN
E12          1     ALPHA ENOLASE/TAU-CRYSTALLIN (FICEDULA HYPOLEUCA ISOLATE OS3
                   )/CN


=> s alpha cyclodextrin
       1829388 ALPHA
         39402 CYCLODEXTRIN
L6        7087 ALPHA CYCLODEXTRIN
                (ALPHA(W)CYCLODEXTRIN)

=> s l2 and l6
L7          38 L2 AND L6

=> s l7 and (PY<2003 or AY<2003 or PRY<2003)
      22983504 PY<2003
       4504574 AY<2003
       3973543 PRY<2003
L8          23 L7 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d l8 1-23 ti abs bib

L8   ANSWER 1 OF 23  HCAPLUS  COPYRIGHT 2009 ACS on STN
TI   Cosmetic composition comprising a complex of cyclodextrin and
     vitamin F
AB   The invention concerns cosmetic and dermatol. compns. that contain
     complexes of vitamin F with α, β, or
     γ-cyclodextrin.  Addnl. substances in the formulations are: silicone
     oils, moisturizers, skin care substances, gelation agents, bactericides,
     antioxidants, sunscreens, emulsifiers, pigments, tanning agents, etc.
     Thus 0.1 mol α -cyclodextrin was mixed with 100 g
     water; 0.1 mol linolic acid was added, homogenized and stirred for 30 h at
     RT and for 8 h at 70°C; the product was dispersed in water,
     filtered, washed and dried under vacuum.  A composition contained
(weight/weight%):.
     alpha.-cyclodextrin-linolic acid complex 4.0;
     γ-cyclodextrin-α-tocopherol complex 1.5; octyl palmitate 2.5;
     octyl stearate 3.5; polyglycerol-2 sesquiisostearate 2.0; cyclomethicone,
     dimethiconol 3.0; lauryl dimethicone 2.0; octyl dimethicone ethoxy
     glycoside, cyclomethicone 12.0; titanium dioxide 5.0;
     polymethylsilsesquioxane 1.0; zinc oxide 2.0; glycerin 2.0; methylparaben
     0.1; sodium chloride 0.4; water 59.0.
AN   2004:402912  HCAPLUS <<LOGINID::20090302>>
DN   140:412001
TI   Cosmetic composition comprising a complex of cyclodextrin and
     vitamin F
IN   Regiert, Marlies; Kupka, Michaela
PA   Wacker-Chemie GmbH, Germany
SO   Eur. Pat. Appl., 17 pp.
     CODEN: EPXXDW
DT   Patent
LA   German
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   EP 1419761           A1    20040519    EP 2003-26137          20031113 <--
     EP 1419761           B1    20051019
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     DE 10253042          A1    20040603    DE 2002-10253042       20021114 <--
```

	KR 2004042827	A	20040520	KR 2003-77579	20031104 <--
	US 20040096413	A1	20040520	US 2003-712703	20031112 <--
	JP 2004161775	A	20040610	JP 2003-385675	20031114 <--
PRAI	DE 2002-10253042	A	20021114 <--		

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Health-care wine of conjugated linoleic acid or its derivative
AB The health-care wine is composed of wine 1,000, antioxidant 0.01-20, conjugated linoleic acid or its derivative 0.1-100, taste improver 0.001-100, surfactant 0.001-20, and adjuvant 0.001-10 part. The drinkable wine is the distilled wine, grape wine, yellow rice wine, etc. The conjugated linoleic acid is 9,11-conjugated linoleic acid, 8,10-conjugated linoleic acid, 8,10-conjugated linoleic acid, and 11,13-conjugated linoleic acid. The conjugated linoleic acid derivative is inclusion complex of cyclodextrin or its derivative, C1-8 alkyl conjugated linoleate, ethylene bis(conjugated linoleate), glycerol mono- conjugated linoleate, glycerol di(conjugated linoleate), glycerol tri(conjugated linoleate), vitamin E conjugated linoleate, etc. The taste improver is sucrose, glucose, fructose, maltose, etc. The antioxidant is vitamin C, vitamin E, isoascorbic acid, etc. The surfactant is Span series, Tween series, sucrose ester, etc. The adjuvant is sucrose octa(acetate), hydroxypropyl starch, Na alginate, etc.
AN 2004:167321 HCAPLUS <<LOGINID::20090302>>
DN 140:198487
TI Health-care wine of conjugated linoleic acid or its derivative
IN Wumanjiang, Aili; Zhang, Yagang; Wen, Bin; Fan, Li; Ma, Li; Nu'ermaimaiti
PA Xinjiang Institute of Chemistry, Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 14 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1371985	A	20021002	CN 2002-102288	20020205 <--
	CN 1200089	C	20050504		
PRAI	CN 2002-102288		20020205 <--		

L8 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Production method of cyclodextrin inclusion materials using marine or animal products
AB Title method comprise treatment of mixts. comprising lipophilic component-containing marine or animal products, starch, and lipid soluble solvents by addition of cyclodextrin synthetase. Thus, 5 g rice starch, 10 g salmon caviar, and 1 THU (based on 1 g starch) cyclodextrin synthetase were reacted in ethanol to give a cyclodextrin inclusion material showing good antioxidant property.
AN 2004:139298 HCAPLUS <<LOGINID::20090302>>
DN 140:182653
TI Production method of cyclodextrin inclusion materials using marine or animal products
IN Miwa, Shoji
PA Ishikawa Prefecture, Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004051866	A	20040219	JP 2002-213621	20020723 <--
	JP 4203578	B2	20090107		
PRAI	JP 2002-213621		20020723 <--		

L8 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Skin sanitizing compositions
AB The present invention relates to compns. and methods of sanitizing and moisturizing skin surfaces. A sanitizing and moisturizing gel contained EtOH 55, isopropanol 3, Biowax-754 0.4, Carbopol Ultrez-10 0.3,Carbowax PEG-200 0.26, propylene glycol 0.02, aminomethylpropanol 0.15, and perfume 0.1%, and water qs.
AN 2002:551533 HCAPLUS <<LOGINID::20090302>>
DN 137:114518
TI Skin sanitizing compositions
IN Sine, Mark Richard; Wei, Karl Shiqing; Jakubovic, David Andrew; Thomas, Cheyne P.; Dodd, Michael Thomas; Putman, Christopher Dean
PA The Procter & Gamble Company, USA
SO U.S., 14 pp., Cont. of U.S. Ser. No. 321,291.
CODEN: USXXAM
DT Patent
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6423329	B1	20020723	US 2000-504286	20000215 <--
PRAI	US 1999-249717	A2	19990212 <--		
	US 1999-120098P	P	19990216 <--		
	US 1999-321291	A2	19990527 <--		

RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Inclusion complex of conjugated linoleic acid (CLA) with cyclodextrins
AB Conjugated linoleic acid (CLA) inclusion complexes with . alpha.-cyclodextrin (α-CD), β-cyclodextrin (β-CD), and γ-cyclodextrin (γ-CD) (designated CLA/CDs inclusion complexes) were prepared to determine the mole ratio of CLA complexed with CDs and the oxidative stability of CLA in the CLA/CDs inclusion complexes. When measured by GC, 1H NMR, and T1 value analyses, 1 mol of CLA was complexed with 5 mol of α-CD, 4 mol of β-CD, and 2 mol of γ-CD. The oxidation of CLA induced at 35° for 80 h was completely prevented by the formation of CLA/CDs inclusion complexes.
AN 2002:259433 HCAPLUS <<LOGINID::20090302>>
DN 137:19586
TI Inclusion complex of conjugated linoleic acid (CLA) with cyclodextrins
AU Park, Cherl W.; Kim, Seck J.; Park, Sook J.; Kim, Jeong H.; Kim, Jung K.; Park, Gu B.; Kim, Jeong O.; Ha, Yeong L.
CS Division of Applied Life Sciences and Institute of Agriculture and Life Sciences Graduate School, Gyeongsang National University, Jinju, 660-701, S. Korea
SO Journal of Agricultural and Food Chemistry (2002), 50(10), 2977-2983
CODEN: JAFCAU; ISSN: 0021-8561
PB American Chemical Society
DT Journal
LA English

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Improvement of Oxidative Stability of Conjugated Linoleic Acid (CLA) by Microencapsulation in Cyclodextrins
AB Oxidative stability of conjugated linoleic acid (CLA) encapsulated in α-, β-, and γ-cyclodextrins (designated CLA/CDs microencapsules) was studied by measuring the headspace-oxygen depletion in airtight serum bottles and by measuring the peroxide values (POV). The rate of oxygen depletion was reduced from 41.0 (control) to 21.5, 2.1, 1.2, and 1.1 μmol/L·h-1 by CLA/α-CD microencapsules at 1:1, 1:2, 1:4, and 1:6 mol ratios, resp., indicating that CLA oxidation was completely protected by a 1:4 mol ratio of CLA/α-CD. Such a protective effect by CLA/β-CD or CLA/γ-CD microencapsules was achieved at a 1:6 mol ratio, but the effect by CLA/β-CD was slightly greater than that by CLA/γ-CD. The protective effect of α-, β-, and γ-CDs for CLA oxidation was confirmed by their POV-reducing abilities in CLA/CDs. These results suggest that α-CD was the most effective for the protection of CLA oxidation by microencapsulation, followed by β-CD and γ-CD.
AN 2000:554702 HCAPLUS <<LOGINID::20090302>>
DN 133:265891
TI Improvement of Oxidative Stability of Conjugated Linoleic Acid (CLA) by Microencapsulation in Cyclodextrins
AU Kim, Seck J.; Park, Gu B.; Kang, Chung B.; Park, Sang D.; Jung, Mun Y.; Kim, Jeong O.; Ha, Yeong L.
CS Department of Agricultural Chemistry Animal Science and Veterinary Medicine and Central Laboratory, Gyeongsang National University, Jinju, 660-701, S. Korea
SO Journal of Agricultural and Food Chemistry (2000), 48(9), 3922-3929
CODEN: JAFCAU; ISSN: 0021-8561
PB American Chemical Society
DT Journal
LA English
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Effects of amino acids, sugars, and ascorbic acid on the stability of linoleic acid hydroperoxide in the water phase
AB Although lipid hydroperoxides are known to decrease food quality and safety, the stability of hydroperoxides in foods has hardly been investigated. Linoleic acid hydroperoxide (HPOD) decomposition by kinetic means with or without various food components was examined Most amino acids, especially lysine, arginine and tryptophan, stabilized HPOD, while cysteine and ascorbic acid accelerated its decomposition Sugars had little effect. According to activation energy calcns., it was found that the HPOD decomposition mechanism in reaction systems with various food components was similar to that in water.
AN 1999:784767 HCAPLUS <<LOGINID::20090302>>
DN 132:121634
TI Effects of amino acids, sugars, and ascorbic acid on the stability of linoleic acid hydroperoxide in the water phase
AU Nishiike, Tamako; Ichikawa, Jun; Kikugawa, Noriko; Takamura, Hitoshi; Matoba, Teruyoshi
CS Division of Human Life and Environmental Sciences, Graduate School of Human Culture, Nara Women's University, Nara, 630-8506, Japan
SO Bioscience, Biotechnology, and Biochemistry (1999), 63(11), 1997-2000

CODEN: BBBIEJ; ISSN: 0916-8451
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry
DT Journal
LA English
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Oxidative stability and nuclear magnetic resonance analyses of linoleic acid encapsulated in cyclodextrins
AB The effects of α- and β-cyclodextrin (CD) on the oxidative stability of linoleic acid (LA) at 35°C were studied by measuring headspace oxygen depletion in airtight 35-mL serum bottles. LA was encapsulated in α-CD or β-CD in an aqueous solution during homogenization at 8000 rpm for 1 min and then dried under vacuum for 60 h at room temperature Headspace oxygen was measured by thermal conductivity gas chromatog. The rate of oxygen depletion for the control, which contained LA only, was 93.8 μmole/L·h. The rates of oxygen depletion for LA, encapsulated at a 1:1 mol ratio (mole CD/mol LA) in α-CD and β-CD, were 13.8 and 111 μmoles/L·h, resp. When LA was encapsulated in α-CD and β-CD at a 2:1 mol ratio (moles CD/mol LA), the rates of oxygen depletion were 0.573 and 53.9 μmoles/L·h, resp. Although α-CD protected LA from reaction with oxygen at both ratios, the rate of oxygen depletion by LA encapsulated in β-CD at a 1:1 mol ratio was not statistically different from the control. β-CD protected LA from reaction with oxygen at a 2:1 mol ratio. 1H NMR spectra of the complexes formed from 1:1 mol ratios of LA and CD indicated that LA was encapsulated in α-CD or β-CD.
AN 1997:681639 HCAPLUS <<LOGINID::20090302>>
DN 127:358219
OREF 127:70123a,70126a
TI Oxidative stability and nuclear magnetic resonance analyses of linoleic acid encapsulated in cyclodextrins
AU Reichenbach, Wendy A.; Min, David B.
CS Department of Food Science, The Ohio State University, Columbus, OH, 43210, USA
SO Journal of the American Oil Chemists' Society (1997), 74(10), 1329-1333
CODEN: JAOCA7; ISSN: 0003-021X
PB AOCS Press
DT Journal
LA English
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Mucosal preparation containing physiologically active peptide
AB This invention related to a mucosal preparation obtained by blending a physiol. active peptide at least with a sorbefacient and a vasodilatory compound Owing to the combined use of the sorbefacient with the vasodilatory compound, the absorption of any desired physiol. active peptide can be enhanced and thus it can be self-administered to a patient without giving any pain caused by parenteral injection. Therefore, it is highly useful as a preparation of a physiol. active peptide for prolonged administration. As the physiol. active peptide, use can be made of insulin, calcitonin, human PTH, somatostatin, glucagon, etc. As the sorbefacient, use can be made of bile acid salts, cyclodextrin, phospholipids, nonionic surfactants, higher fatty acids, etc. As the vasodilatory compds., use can be made of calcium channel inhibitors, prostaglandin E1, isosorbide nitrate, nitroglycerin, etc.

AN 1997:259764 HCAPLUS <<LOGINID::20090302>>
DN 126:242891
OREF 126:46901a,46904a
TI Mucosal preparation containing physiologically active peptide
IN Yamamoto, Nakayuki; Ito, Teruomi
PA Asahi Kasei Kogyo Kabushiki Kaisha, Japan; Hisamitsu Seiyaku Kabushiki Kaisha; Yamamoto, Nakayuki; Ito, Teruomi
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9706813	A1	19970227	WO 1996-JP2277	19960812 <--
	W: CA, CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 11292787	A	19991026	JP 1995-208010	19950815 <--
	CN 1179723	A	19980422	CN 1996-192821	19960812 <--
	EP 845265	A1	19980603	EP 1996-926626	19960812 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 3824023	B2	20060920	JP 1997-509140	19960812 <--
PRAI	JP 1995-208010	A	19950815	<--	
	WO 1996-JP2277	W	19960812	<--	

OS MARPAT 126:242891

L8 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI A method of producing a taxane-type diterpene
AB A simple method of producing a taxane-type diterpene by plant tissue culture is disclosed. Productivity can be improved by carrying out the culture in the presence of coronatines, a bacterium that produced the coronatines, a culture solution or a culture extract of such bacteria, cyclic polysaccharides, fatty acids, or an amino or imino derivative of jasmonic acids.
AN 1996:572123 HCAPLUS <<LOGINID::20090302>>
DN 125:219760
OREF 125:41103a,41106a
TI A method of producing a taxane-type diterpene
IN Yukimune, Yukihito; Hara, Yasuhiro; Tan, Hiroaki; Tomino, Ikuo
PA Mitsui Petrochemical Industries, Ltd., Japan
SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 727492	A2	19960821	EP 1995-308498	19951127 <--
	EP 727492	A3	19961016		
	EP 727492	B1	20010131		
	R: DE, FR, GB, IT, NL				
	JP 08140690	A	19960604	JP 1994-291783	19941125 <--
	JP 3549594	B2	20040804		
	JP 08163991	A	19960625	JP 1994-312258	19941215 <--
	JP 09065889	A	19970311	JP 1995-218874	19950828 <--
	JP 3625908	B2	20050302		
	JP 08205882	A	19960813	JP 1995-301654	19951120 <--
	JP 3746550	B2	20060215		
PRAI	JP 1994-291783	A	19941125	<--	
	JP 1994-301179	A	19941205	<--	

JP 1994-312258 A 19941215 <--
JP 1995-218874 A 19950828 <--
OS MARPAT 125:219760

L8 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Aggregation of polyunsaturated fatty acids in the presence of cyclodextrins
AB The aggregation behavior of the polyunsatd. fatty acids (PUFA) linoleic acid and arachidonic acid was studied in the presence of cyclodextrins (CDs). The influence of CD concentration on CMC of PUFA suggests that two CD mols. bind sequentially to one mol. of PUFA. Two equilibrium consts., K1 representing the interaction of the first CD mol., and K2, the interaction of the second, were determined by non-linear regression of the PUFA CMC vs. CD concentration data to an expression deduced from the reaction scheme in the equilibrium The effect of pH and the structure of the CD on the equilibrium consts. was studied. It is postulated that the first CD mol. interacts with the carboxyl group of PUFA through hydrogen bonding when the fatty acid is protonated, while the second CD mol. binds to the hydrocarbon chain of the PUFA through hydrophobic interaction. The formation of hydrogen bonds was principally affected by the inner diameter of the CD, while the hydrophobic interactions were very strongly affected by the polarity of the CD group coating the inner channel. The relevance of the results for the development of enzyme assays involving fatty acids is discussed.
AN 1995:628687 HCAPLUS <<LOGINID::20090302>>
DN 123:50376
OREF 123:8923a,8926a
TI Aggregation of polyunsaturated fatty acids in the presence of cyclodextrins
AU Bru, Roque; Lopez-Nicolas, Jose M.; Garcia-Carmona, Francisco
CS Dep. Bioquim. Biol. Mol. "A", Univ. Murcia, Murcia, E-30001, Spain
SO Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1995), 97(3), 263-9
CODEN: CPEAEH; ISSN: 0927-7757
PB Elsevier
DT Journal
LA English

L8 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Entrapment of liquid lipids into powdery matrixes of saccharides and proteins
AB The emulsifying activity, the high stabilizing activity of the emulsion and the formation of a fine dense skin layer during drying were the properties of agents that effectively entrapped liquid lipids. Gum arabic and gelatin were effective. Addition of an agent having a property to a base agent lacking the property improved the entrapment. Oxidation of entrapped liquid lipid was retarded. However, the extent of retardation depended on the kind of lipids and the kind of entrapping agents. Oxidation processes of some combinations of lipids and entrapping agents were expressed by a kinetic model including oxygen diffusion through dehydrated entrapping agents. Et eicosapentaenoate was also stabilized by the entrapment.
AN 1995:485889 HCAPLUS <<LOGINID::20090302>>
DN 122:263834
OREF 122:48177a,48180a
TI Entrapment of liquid lipids into powdery matrixes of saccharides and proteins
AU Matsuno, Ryuichi; Imagi, Jun; Adachi, Shuji
CS Fac. Agric., Kyoto Univ., Kyoto, 606-01, Japan
SO Dev. Food Eng., Proc. Int. Congr. Eng. Food, 6th (1994), Meeting Date 1993, Volume Pt. 2, 1065-7. Editor(s): Yano, Toshimasa; Matsuno,

Ruuichi; Nakamura, Kozo. Publisher: Blackie, Glasgow, UK.
CODEN: 61FFAL
DT Conference
LA English

L8 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Utilization of cyclodextrin as fat soluble compound carrier to serum-free culture of rat astrocytes
AB α -Cyclodextrin complexes with fat-soluble vitamins and unsatd. fatty acids were prepared and examined as replacements for bovine serum albumin as fat-soluble compound carriers on cultured rat astrocytes. In serum-supplemented medium, it was difficult to evaluate the effects of fat-soluble compds. in serum on cell growth. Therefore, serum-free chemical defined medium supplemented with growth factors, hormones, and nutrients was developed for rat astrocytes to evaluate these effects. . alpha.-Cyclodextrin complexes with 3 vitamins (vitamin A acetate, E, and K1) and 3 fatty acids (linoleic, linolenic, and oleic acids) showed growth promoting activities for astrocytes in serum-free medium. Usually, supplementing fat-soluble compds. to a cell culture medium is very difficult, especially to a low or no protein medium, but α -cyclodextrin can replace albumin as a fat-soluble compound carrier in serum-free cell cultures.
AN 1993:579303 HCAPLUS <<LOGINID::20090302>>
DN 119:179303
OREF 119:32055a,32058a
TI Utilization of cyclodextrin as fat soluble compound carrier to serum-free culture of rat astrocytes
AU Nakama, Akihiko
CS Osaka City Inst. Public Health Environ. Sci., Osaka, 543, Japan
SO Annual Report of Osaka City Institute of Public Health and Environmental Sciences (1992), Volume Date 1991, 54, 48-53
CODEN: AOISDR; ISSN: 0285-5801
DT Journal
LA Japanese

L8 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Retarded oxidation of liquid lipids entrapped in matrixes of saccharides or proteins
AB Me linoleate (ML), linoleic acid (LA), and Et eicosapentaenoate (EE) were entrapped in saccharide and protein matrixes, and then stored at 37° in a desiccator controlled at 75% relative humidity. ML entrapped with α -cyclodextrin, maltodextrin, and pullulan was extremely resistant to autoxidn., but LA entrapped with maltodextrin and pullulan rapidly oxidized. LA entrapped with . alpha.-cyclodextrin was the most stable against oxidation ML entrapped with gelatin or gum arabic was less resistant to autoxidn. than that entrapped with pullulan; there was little difference in the susceptibility to oxidation between ML and LA entrapped with gelatin or gum arabic. Egg albumin protected ML more effectively against oxidation than LA, while sodium caseinate protected LA more than ML. EE entrapped with pullulan was highly resistant to oxidation, 90% of the total lipid remaining after 35 days. The effect on the oxidation of diffusion of oxygen through the matrix was estimated Retardation of oxidation of the entrapped lipid can not be explained only by the effect of diffusion.
AN 1992:590442 HCAPLUS <<LOGINID::20090302>>
DN 117:190442
OREF 117:32869a,32872a
TI Retarded oxidation of liquid lipids entrapped in matrixes of saccharides or proteins
AU Imagi, Jun; Muraya, Koji; Yamashita, Daisuke; Adachi, Shuji; Matsuno,

Ryuichi
CS Fac. Agric., Kyoto Univ., Kyoto, 606-01, Japan
SO Bioscience, Biotechnology, and Biochemistry (1992), 56(8), 1236-40
CODEN: BBBIEJ; ISSN: 0916-8451
DT Journal
LA English

L8 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Powderization of liquid-state lipids
AB Liquid-state lipids (linoleic acid, Me linoleate, or Me oleate) were powderized by adsorption on gum arabic, starch, maltodextrin, .alpha.-cyclodextrin, maltose, glucose, or CM-cellulose. Lipids adsorbed on α -cyclodextrin, gum arabic, or CM-cellulose had high stability. The emulsifying activity of the lipid-adsorbent complex is described.
AN 1991:654556 HCAPLUS <<LOGINID::20090302>>
DN 115:254556
OREF 115:43273a,43276a
TI Powderization of liquid-state lipids
AU Matsuno, Ryoichi; Imagi, Jun
CS Agric. Coll., Kyoto Univ., Kyoto, Japan
SO New Food Industry (1991), 33(5), 57-64
CODEN: NYFIAM; ISSN: 0547-0277
DT Journal
LA Japanese

L8 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Specific adsorbents in isolation and purification of cyclodextrins
AB A number of synthesized affinity sorbents were tested to find methods for the separation of α-, β-, and γ-cyclodextrins (CDs) from one another and from acyclic dextrins. None of the gels retarded acyclic dextrins, whereas α-CD was specifically adsorbed onto supports derivatized with alkyl functions, β-CD was specifically adsorbed onto supports derivatized with phenyl or substituted Ph, and γ-CD was specifically adsorbed onto a gel derivatized with a naphthyl compound It was evident that for achievement of binding capacities high enough for practical preparation of the CDs, various parameters such as the support material, its porosity, ligand, ligand concentration, temperature, and the composition of the mobile phase must be optimized.
AN 1989:453519 HCAPLUS <<LOGINID::20090302>>
DN 111:53519
OREF 111:9029a,9032a
TI Specific adsorbents in isolation and purification of cyclodextrins
AU Makela, Mauri; Mattsson, Pekka; Korpela, Timo
CS Dep. Biochem., Univ. Turku, Turku, SF-20500, Finland
SO Biotechnology and Applied Biochemistry (1989), 11(2), 193-200
CODEN: BABIEC; ISSN: 0885-4513
DT Journal
LA English

L8 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Effects of arachidonic acid and other long-chain fatty acids on the membrane currents in the squid giant axon
AB The effects of arachidonic acid (I) and some other long-chain fatty acids on the ionic currents of the voltage-clamped squid giant axon were investigated by using intracellular application of the test substances. The effects of these acids, which are usually insol. in solution, were examined by using α -cyclodextrin as a solvent. . alpha.-Cyclodextrin itself had no effect on the

excitable membrane. I mainly suppressed the Na+ current, but had little effect on the K+ current. These effects were completely reversed after washing with control solution The concentration required to suppress the peak inward current by 50% (ED50) was 0.18 mM, which was 10-fold larger than that of medium-chain fatty acids, like 2-decenoic acid. The Hill number was 1.5 for I, which is almost the same value as that for medium-chain fatty acids. This means that the mechanisms of the inhibition are similar in both long- and medium-chain fatty acids. When the long-chain fatty acids were compared, the efficacy of suppression of the Na+ current was about the same value for I, docosatetraenoic acid, and docosahexaenoic acid. The suppression effects of linoleic acid and linolenic acid on Na+ currents were 1/3 of that of I. Oleic acid had a small suppression effect and stearic acid had almost no effect on the Na+ current. The currents were fitted to equations similar to those proposed by Hodgkin and Huxley (Hodgkin, A. L.; and Huxley, A. F., 1952) and the change in the parameters of these equations in the presence of fatty acids were calculated The curve of the steady-state activation parameter for the Na+ current against membrane potential and the time constant of activation were shifted 10 mV in a depolarizing direction by the application of fatty acids. The time constant for inactivation was almost unaffected by application of these fatty acids.

AN 1989:132753 HCAPLUS <<LOGINID::20090302>>
DN 110:132753
OREF 110:21875a,21878a
TI Effects of arachidonic acid and other long-chain fatty acids on the membrane currents in the squid giant axon
AU Takenaka, Toshifumi; Horie, Hidenori; Hori, Hideaki; Kawakami, Tadashi
CS Sch. Med., Yokohama City Univ., Yokohama, 236, Japan
SO Journal of Membrane Biology (1988), 106(2), 141-7
CODEN: JMBBBO; ISSN: 0022-2631
DT Journal
LA English

L8 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Growth of an established line of mouse mammary tumor cells under serum-free conditions
AB An established line of mouse mammary tumor cells (MTD cells) were cultured in a serum-free medium consisting of a 1:1 mixture of Dulbecco's modified Eagle's medium and Ham's F-12 medium supplemented with bovine serum albumin (BSA), insulin, and transferrin. To promote cell attachment and spreading, culture dishes were precoated with plasma fibronectin isolated from fibrinogen. Under these serum-free conditions, MTD cells grew at a rate close to that attained by the serum-supplemented medium. Among the additives in the serum-free medium, BSA was replaced with oleic acid or a complex of oleic acid and α -cyclodextrin.
Transferrin was replaced with Fe2+ or Fe3+. Addition of polyvinylpyrrolidone further improved the growth. Thus, MTD cells can be grown on a fibronectin-coated surface in a chemical defined medium with insulin as the only protein supplement. MTD cells grown under the serum-free conditions still retained the differentiated properties of the original MTD cells; i.e., the production of mouse mammary tumor virus in response to dexamethasone.

AN 1986:164689 HCAPLUS <<LOGINID::20090302>>
DN 104:164689
OREF 104:25993a,25996a
TI Growth of an established line of mouse mammary tumor cells under serum-free conditions
AU Kawamura, Kazuo; Enami, Jumpei; Kohmoto, Kaoru; Koga, Mutuyosi
CS Sch. Med., Dokkyo Univ., Mibu, 321-02, Japan
SO Dokkyo Journal of Medical Sciences (1985), 12(2), 167-80
CODEN: DJMSDB; ISSN: 0385-5023

DT Journal
LA English

L8 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Medium for animal tissue culture
AB A medium containing cyclodextrin, to save serum, is prepared for animal tissue culture. Thus, 10 mg of linoleic acid, oleic acid, or vitamin E in 7 mL EtOH was added to an α -cyclodextrin [10016-20-3] solution (1 g in 7 mL H2O) and heated to 70° under N2. When the solution turned transparent, it was rapidly cooled and kept cold (4°) for 20 h. The resulting precipitate was washed with 10 mL EtOH, dried under vacuum, washed with petroleum ether, and dried under vacuum. The RITC 56-2 medium was mixed with the 300 mg/L reaction product and 1 g/L α -cyclodextrin and the ultrafiltered. Human lymphogemmule-like cells, UMCL-3, were cultured in the medium to yield .apprx.4.5 + 103 units of interferon/mL.
AN 1983:124208 HCAPLUS <<LOGINID::20090302>>
DN 98:124208
OREF 98:18913a,18916a
TI Medium for animal tissue culture
PA Ajinomoto Co., Inc., Japan; Yamane, Isao
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 57194787	A	19821130	JP 1981-81600	19810528 <--
JP 63018465	B	19880419		
PRAI JP 1981-81600		19810528 <--		

OS MARPAT 98:124208

L8 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI α -Cyclodextrin: a partial substitute for bovine serum albumin in serum-free culture of mammalian cells
AB The use was investigated of oleic acid- or linoleic acid-. alpha.-cyclodextrin inclusion complexes as albumin substitutes for mammalian cells. α -Cyclodextrin did not show any cytotoxic effects at 2g/L medium. Growth curves are shown for 2 types of cells. UMCL cells grew well enough in the cyclodextrin-complex-containing, serum-free medium, whereas HEL cells required a small amount of albumin in addition to cyclodextrin for abundant growth.
AN 1982:612006 HCAPLUS <<LOGINID::20090302>>
DN 97:212006
OREF 97:35533a,35536a
TI α -Cyclodextrin: a partial substitute for bovine serum albumin in serum-free culture of mammalian cells
AU Yamane, Isao; Kan, M.; Minamoto, Y.; Amatsuji, Y.
CS Inst. Tuberculosis Cancer, Tohoku Univ., Sendai, 980, Japan
SO Cold Spring Harbor Conferences on Cell Proliferation (1982), 9(Growth Cells Horm. Defined Media, Book A), 87-92
CODEN: CSHCAL; ISSN: 0097-5230
DT Journal
LA English

L8 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI α -Cyclodextrin, a novel substitute for bovine albumin in serum-free culture of mammalian cells
AB The use of α-, β-, and γ-cyclodextrin (CD) in combination with unsatd. fatty acids as a serum substitute in mammalian cell cultures

was examined by using a human lymphoblast cell line (UMCL) grown in RITC 56-1 medium supplemented with synthetic lecithin, cholesterol, galactose, and mannose and by using human diploid fibroblasts (HEL) grown in RITC 80-7 medium. On the basis of cytotoxic and cost considerations, α-CD was used for the expts. Both α-CD-oleic acid and α-CD- linoleic acid had growth-enhancing effects on UMCL cells up to 100 mg/L medium but exhibited toxic effects at higher concns. However, when 100 mg α-CD included with both fatty acids and 1000 mg free α-CD were added to 1 L of medium, stable and reproducible growth-promoting effects were observed With HEL cells, growth similar to that in bovine serum albumin-supplemented medium was observed by addition of a concentrated α-CD complex to a final concentration of 10-20 mg/L.

AN 1982:100488 HCAPLUS <<LOGINID::20090302>>
DN 96:100488
OREF 96:16453a,16456a
TI α -Cyclodextrin, a novel substitute for bovine albumin in serum-free culture of mammalian cells
AU Yamane, Isao; Kan, Mikio; Minamoto, Yoshiki; Amatsuji, Yasuo
CS Res. Inst. Tuberc. Cancer, Tohoku Univ., Sendai, 980, Japan
SO Proceedings of the Japan Academy, Series B: Physical and Biological Sciences (1981), 57(10), 385-9
CODEN: PJABDW; ISSN: 0386-2208
DT Journal
LA English

L8 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Chromatographic investigation of the component glycerides of kusum [kusam] oil
AB Sep. the triglyceride components from a 5% solution of crude kusam or Macassar oil (from the seeds of Schleichera trijuga) in $CHCl_3$ by adsorption thin-layer chromatog. (t.l.c.) on Silica Gel G plates by developing with the 75:25:1 n-C_6H_{14}-Et_2O-HOAc solvent of D. C. Malins and H. K. Mangold (1960). Locate the bands by exposure to I, remove adsorbed I, extract the adsorbent with warm $CHCl_3$, and filter. Concentrate the filtrate to a 1% solution by evaporation Subfractionate the triglyceride components by t.l.c. on Silica Gel G plates impregnated with $AgNO_3$, by developing with the 100:0.5 $CHCl_3$-HOAc solvent of C. B. Barrett, et al. (1963). Locate the bands by spraying with 0.2% 2',7'-dichlorofluorescein in 95% EtOH and exposing to uv light. Extract the bands with anhydrous Et_2O and free from the dye by the procedure of H. P. Kaufmann and H. Wessels (1966). Evaporate the solvent from each fraction, then saponify with N KOH in EtOH, remove EtOH, acidify to liberate the fatty acids, extract with Et_2O, and wash free of mineral acids with H_2O. Remove the Et_2O and dissolve each residual fraction in 0.5 ml. $CHCl_3$. Fractionate the fatty acids of each fraction by reversed-phase t.l.c. on a plaster of Paris plate coated with 5% liquid paraffin in petroleum ether, as described by H. P. Kaufmann, et al. (1961). Develop the plates with 90% HOAc or 70% HOAc for the higher- and lower-mol.-weight fatty acids, resp. Detect the spots by spraying with 1% . alpha.-cyclodextrin in 30% EtOH and exposing to iodine.
The fatty acid compns. of the 10 trigylceride subfractions obtained by $AgNO_3$ t.l.c. are presented.

AN 1969:431621 HCAPLUS <<LOGINID::20090302>>
DN 71:31621
OREF 71:5853a,5856a
TI Chromatographic investigation of the component glycerides of kusum [kusam] oil
AU Kundu, M. K.
CS Calcutta Univ., Calcutta, India
SO Journal of Chromatography (1969), 41(2), 276-8

CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English

L8 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Acylated cyclodextrins as polar stationary phases for gas-liquid chromatography
AB The use of β-cyclodextrin acetate (I) (mol. weight 2018, m. 199-201°), and of mixts. of I, β-cyclodextrin propionate (mol. weight 2312, m. 169°), and α -cyclodextrin acetate (mol. weight 1730, m. 243-5°) as stationary phases for gas-liquid chromatography is recommended. Very little bleeding or degradation was evident for 10 g. I applied on 40 g. 30-60 mesh Chromasorb R, when used at 236° with a 57 ml./min. He flow through a 10 ft. + 1/4-in. column. Resolution of fatty acids obtained with the above column resembled that obtained with a butanediol-succinic acid polyester stationary phase under similar conditions.
AN 1962:10665 HCAPLUS <<LOGINID::20090302>>
DN 56:10665
OREF 56:1983a-c
TI Acylated cyclodextrins as polar stationary phases for gas-liquid chromatography
AU Sand, Donald M.; Schlenk, Hermann
CS Univ. of Minnesota, Austin
SO Anal. Chem. (1961), 33, 1624-5
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA Unavailable